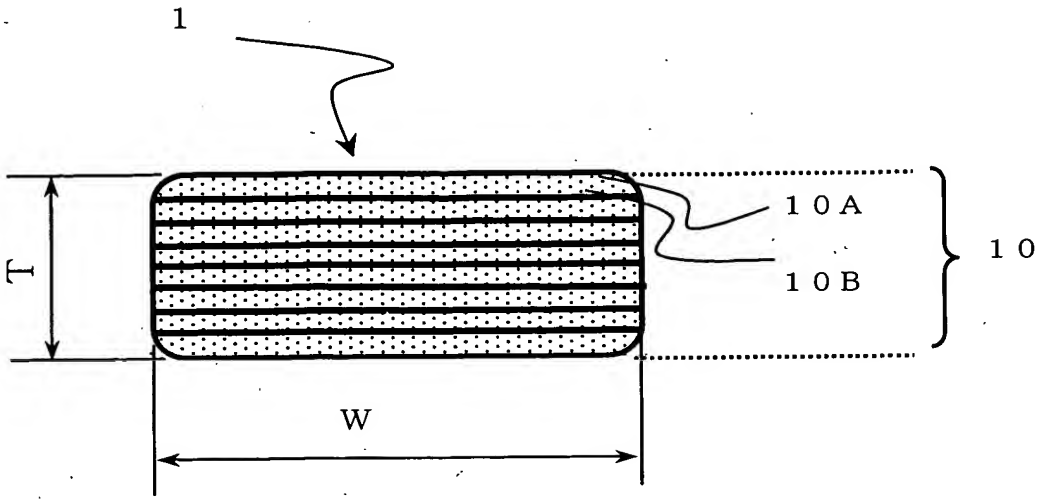
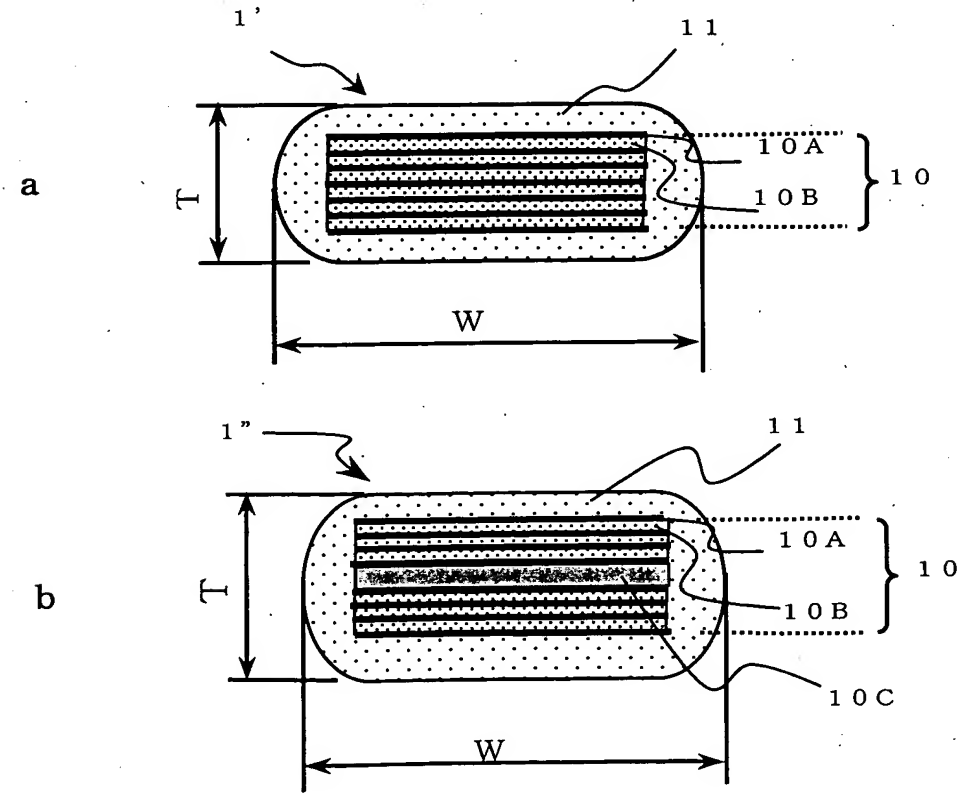
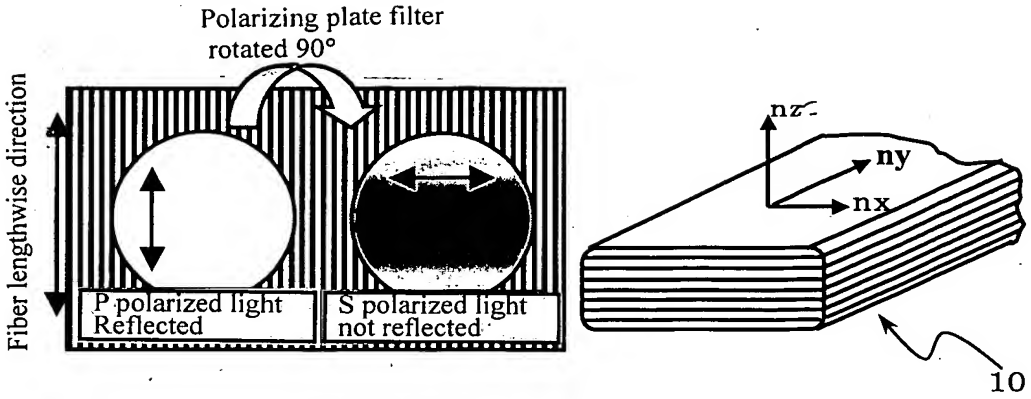
[Fig. 1]



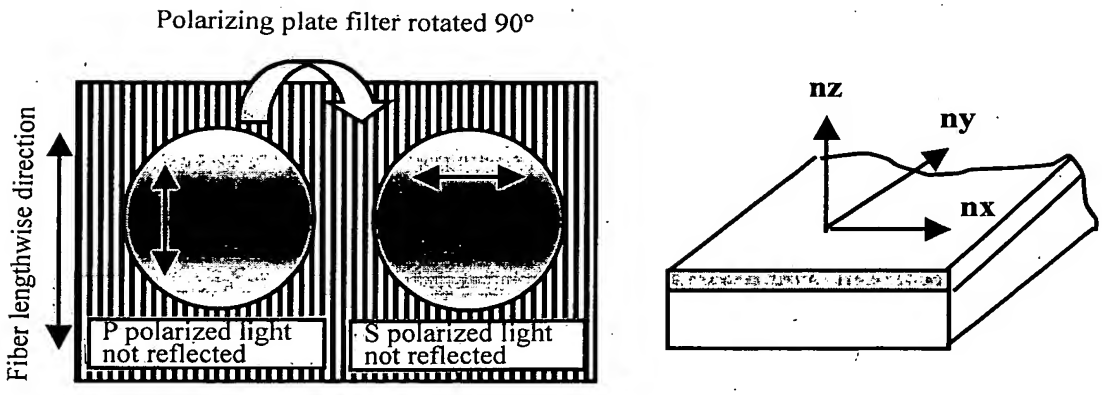
[Fig. 2]



[Fig. 3]

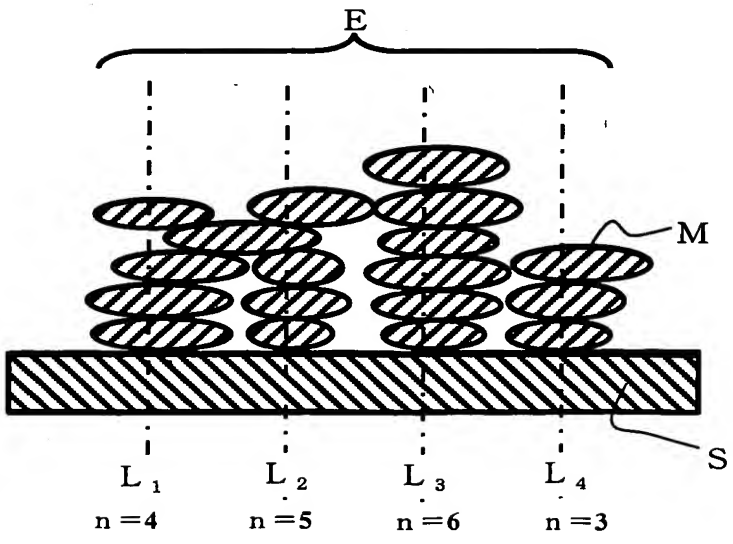


a Optical interference fiber

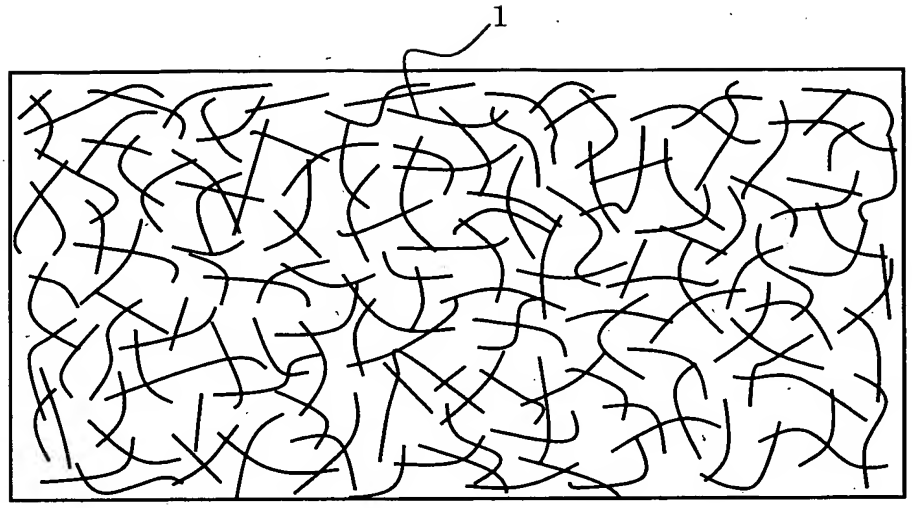


b Metal vapor deposited film slit yarn

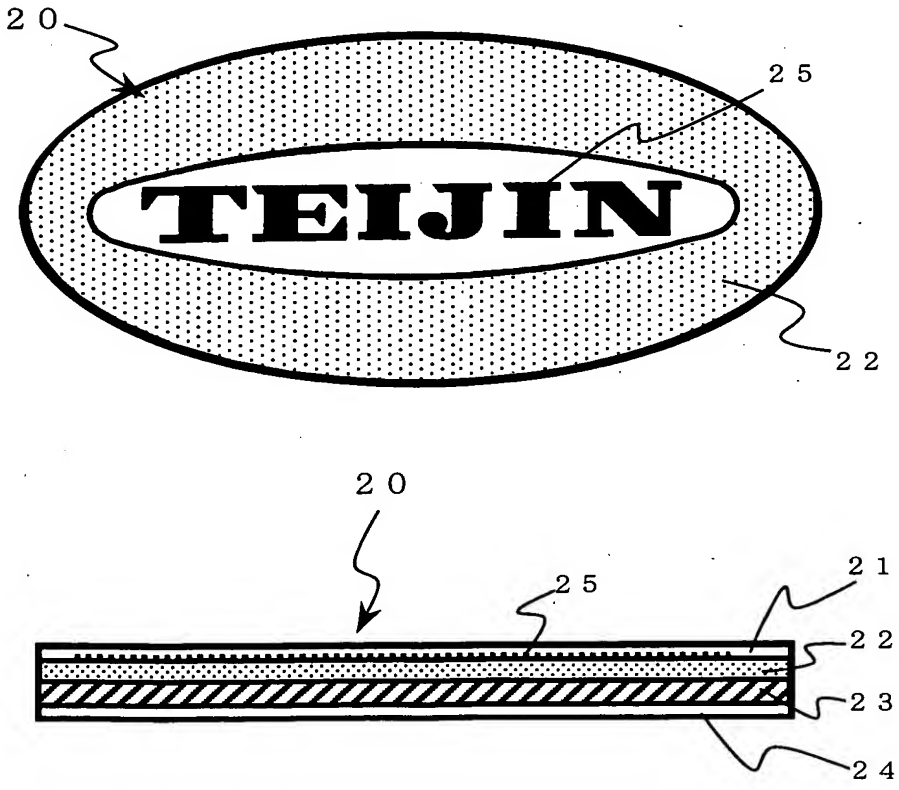
[Fig. 4]



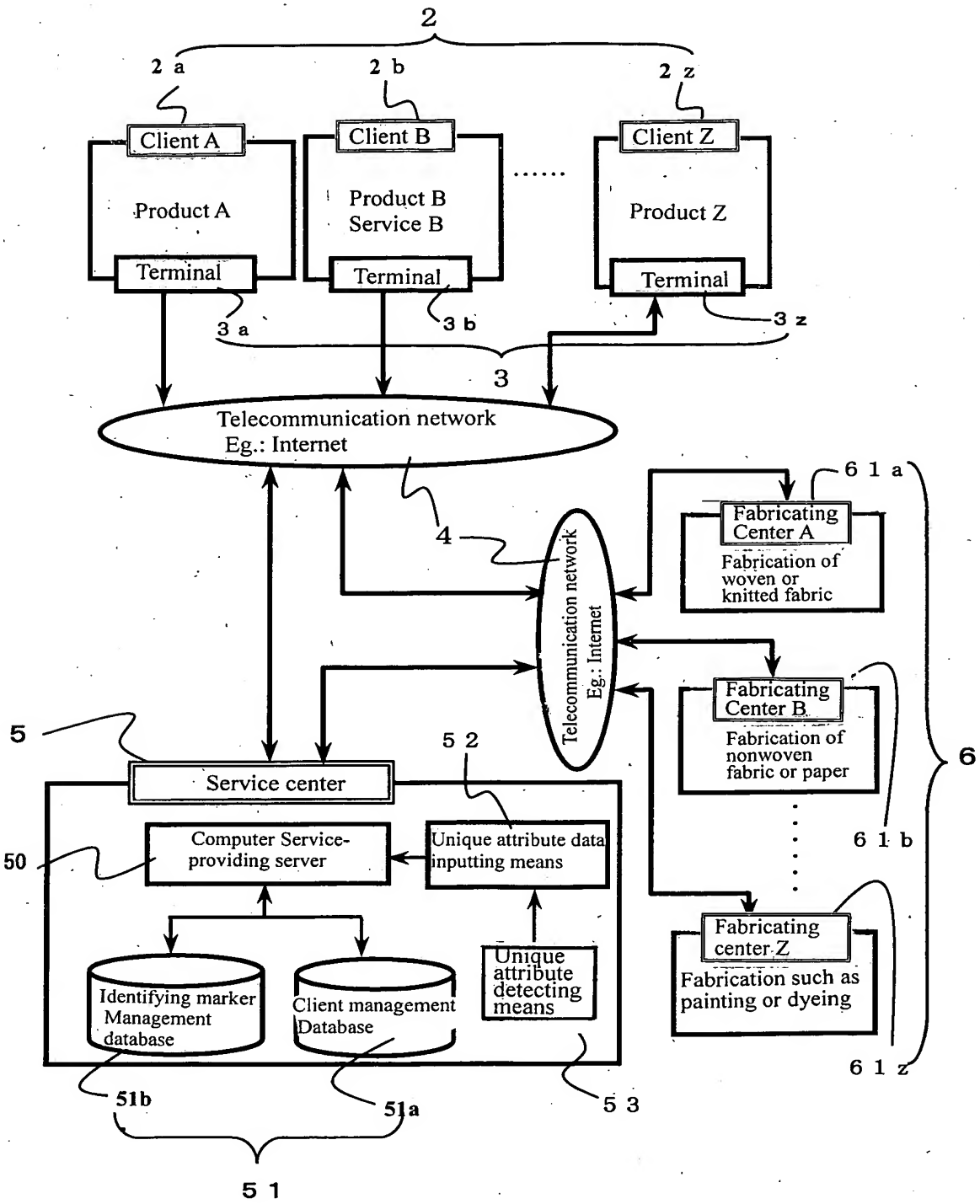
[Fig. 5]



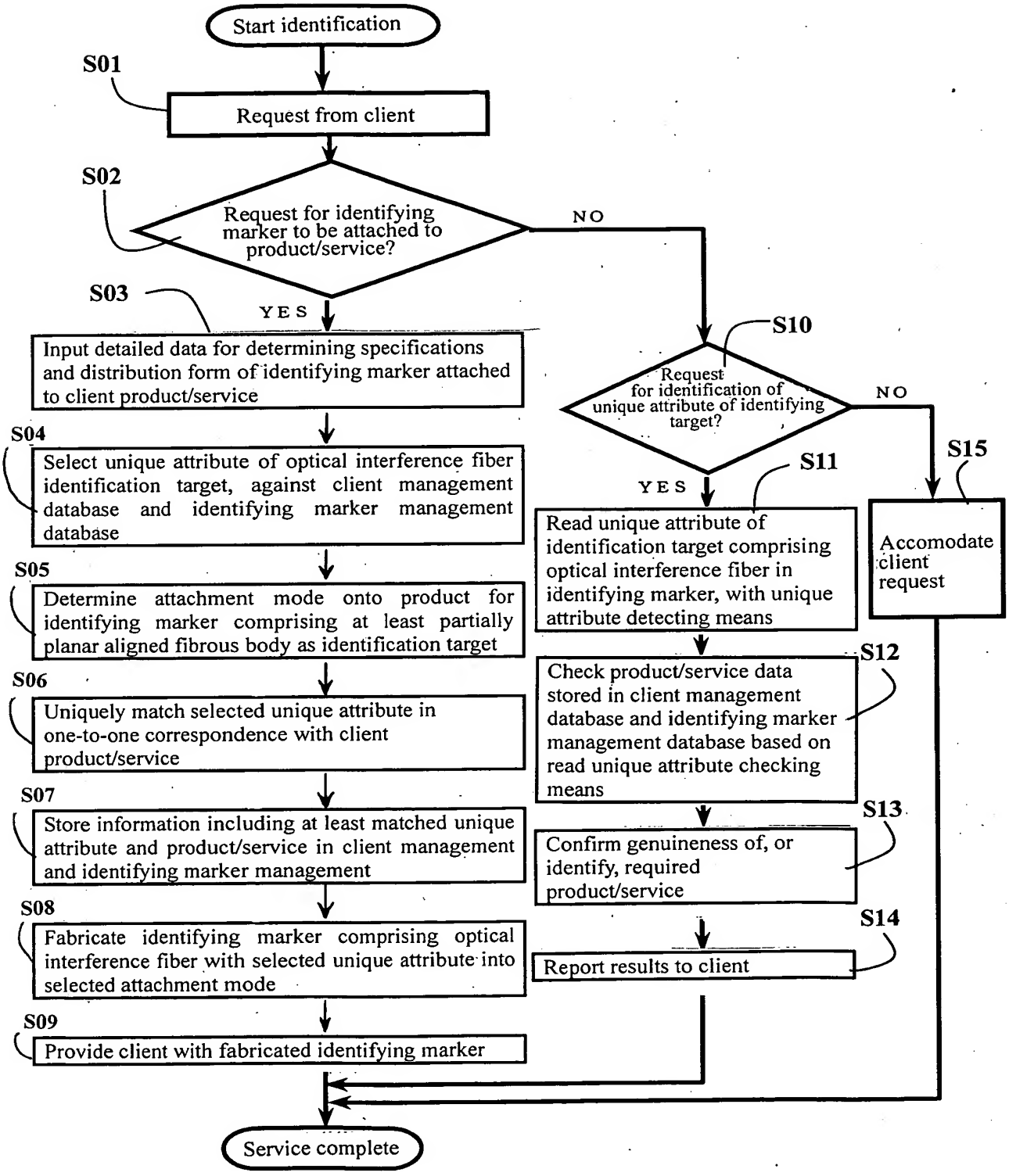
[Fig. 6]



[Fig. 7]


2
2 a
2 b
2 z
Client A
Client B
Client Z
Product A
Product B
Service B
Product Z
Terminal
Terminal
Terminal
3 a
3 b
3 z
3
Telecommunication network
Eg.: Internet
4
Telecommunication network
Eg.: Internet
6 1 a
Fabricating Center A
Fabrication of woven or knitted fabric
Fabricating Center B
Fabrication of nonwoven fabric or paper
Fabricating center Z
Fabrication such as painting or dyeing
6 1 b
6 1 z
6
5
5 2
Service center
50
Computer Service-providing server
Unique attribute data inputting means
Identifying marker Management database
Client management Database
Unique attribute detecting means
51b
51a
5 3
5 1

[Fig. 8]



[Fig. 9]

Sample No.	Fiber 1	Fiber 2	Fiber 3	Fiber 4	Fiber 5	Fiber 6
Polymer A	I-PENFT*1	I-PET*2	I-PET1*3	I-PET2*4	PENFT*5	PS*6
Polymer B	NY6*7	PMMA*8	PMMA*8	NY6*7	PET*9	NY6*7
SP 1	21.2	21.5	21.0	21.5	22.2	17.4
SP 2	22.5	18.3	18.3	22.5	21.5	22.2
SP ratio	0.91	1.17	1.15	0.96	1.03	0.77
W1*10 nm	80	95	70	72	70	120
W2*11 nm	85	110	73	78	61	150

*1. I-PENTFT: 5-Sodium isophthalic acid (1.5 mol%) copolymerized polyethylene 2,6-naphthalate
*2. I-PET1: 5-Sodium isophthalic acid (1.5 mol%) copolymerized polyethylene terephthalate
*3. NP-PET: Neopentyl glycol (20 mol%) copolymerized polyethylene terephthalate
*4. I-PET2: 5-Sodium isophthalic acid (0.5 mol%) copolymerized polyethylene 2,6-naphthalate
*5. PENFT: Polyethylene 2,6-naphthalate
*6. PS: Polystyrene
*7. NY6: Mylon-6
*8. PMMA: Polymethyl methacrylate
*9. PET: Polyethylene terephthalate
*10. W1: Average thickness of polymer A layer
*11. W2: Average thickness of polymer B layer

[Fig. 10]

Sample No.	Fiber 1	Fiber 2	Fiber 3	Fiber 4	Fiber 5	Fiber 6
n1x	1.632	1.561	1.550	1.561	1.632	1.594
n1z	1.750	1.694	1.651	1.694	1.750	1.588
n2x	1.531	1.491	1.492	1.516	1.564	1.516
n2z	1.565	1.472	1.472	1.569	1.694	1.557
|n1x-n2x|	0.119	0.069	0.058	0.045	0.071	0.078
|n1z-n2z|	0.185	0.222	0.178	0.125	0.056	0.031
Δn12*1	0.065	0.153	0.120	0.080	-0.015	-0.047
Visual examina-tion of polariza-tion property	satis-factory	satis-factory	satis-factory	satis-factory	unsatis-factory	unsatis-factory
ΔE	3.36	14.9	13.8	10.6	0.83	0.35
Wavelength*2	527	631	438	470	430	840

*1. $\Delta n12 = |n1z - n2z| - |n1x - n2x|$
*2. ΔE measurement wavelength

[Fig. 11]

Sample No.	Fiber 7	Fiber 8
Polymer A	PC*1	I-PENFT*2
Polymer B	PMMA*3	Ny-6*4
SP 1	20.3	21.2
SP 2	18.3	22.5
SP ratio	1.11	0.94
W1 nm *5	230	80
W2 nm *6	259	85
Fiber reflection wavelength (nm)	1502	500
Polymer C	-	50 mmol% Co $CH_3COO_2 \cdot 4H_2O$-containing I-PENFT
W3 nm *7	-	1080

*1 PC: Polycarbonate
*2 I-PENFT: 5-isophthalic acid (0.8 mol%) copolymerized polyethylene 2,6-naphthalate
*3 PMMA: Polymethyl methacrylate
*4 Ny-6: nylon-6
*5 W1: Average thickness of polymer A layer
*6 W2: Average thickness of polymer B layer
*7 W3: Average thickness of polymer C layer